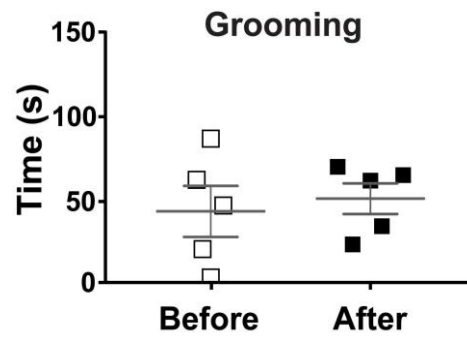
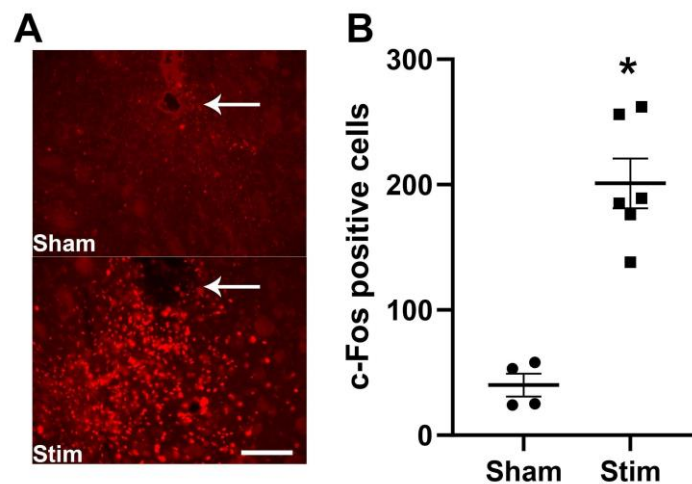


Supplementary Material

Supplementary Results



Supplementary Fig. 1. OFC-VMS repeated opto-stimulation did not increase self-grooming behavior in a second cohort of rats. Total duration of self-grooming behavior assessed for 5 min before and after the OFC-VMS opto-stimulation protocol. There was no change in grooming expression ($p = 0.76$). Markers represent individual animals; bars indicate mean and SEM. $n = 5$.



Supplementary Fig. 2. Electrical stimulation increased c-Fos expression in the VMS. **A)** Representative images of slices of the VMS demonstrating electrical-induced neural activation. c-Fos immunostaining (red). Localization of the tip of the electrodes (arrows). Scale bar 200 μ m. Electrical stimulation was applied at 130 Hz for 60 min. **B)** Quantification of c-Fos-positive cells in the VMS of electrical-stimulated animals compared to sham-stimulated controls. Markers represent individual animals; bars indicate mean and SEM. There was an increased c-Fos expression in the VMS after electrical stimulation compared to controls ($\exp(\beta) = 5.02$, $SE = 0.08$, $z = 19.2$, $p = 0.01$). $n = 4$ for Sham and $n = 6$ for Stim.